

Metal Bulletin
Events

15th Galvanizing & Coil Coating Conference



Atrayee Sarkar Sanyal, Tata Steel Ltd., India

Trends in the construction sector and opportunities for coated steel"

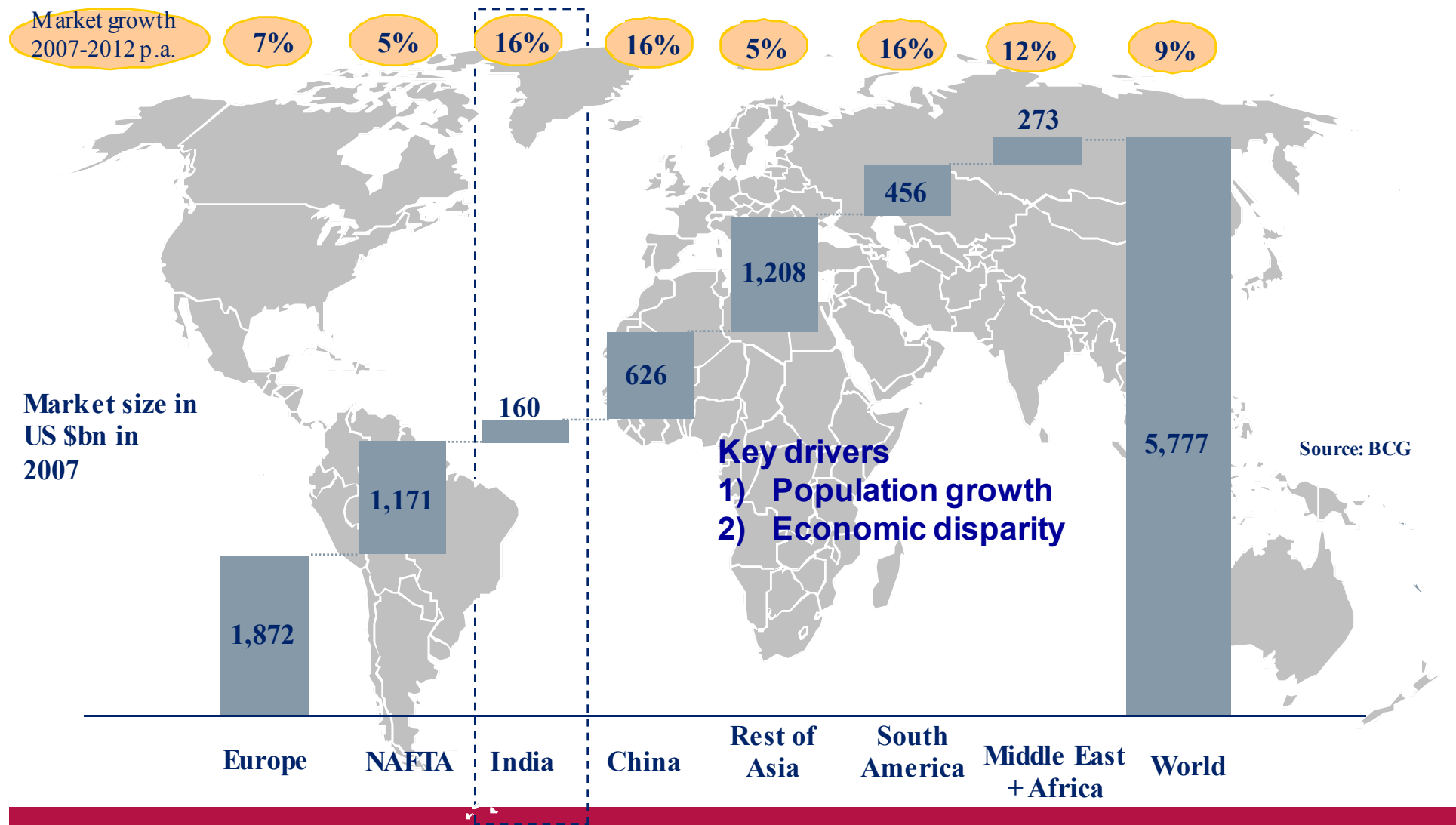


Contents

- Construction sector overview & steel consumption
- Construction segments & Drivers for growth
- Developments in Coated Steel industry & opportunities for new products
- Case study India and how can developing markets address this opportunity

Construction sector overview & steel consumption

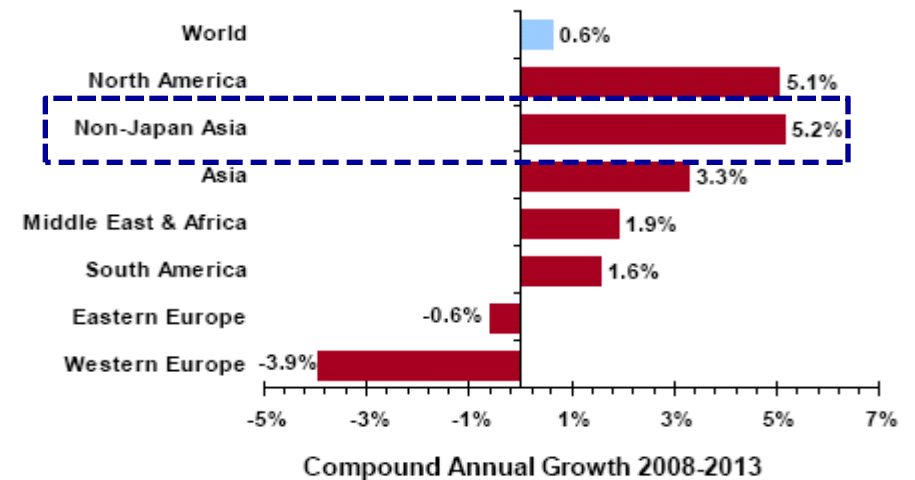
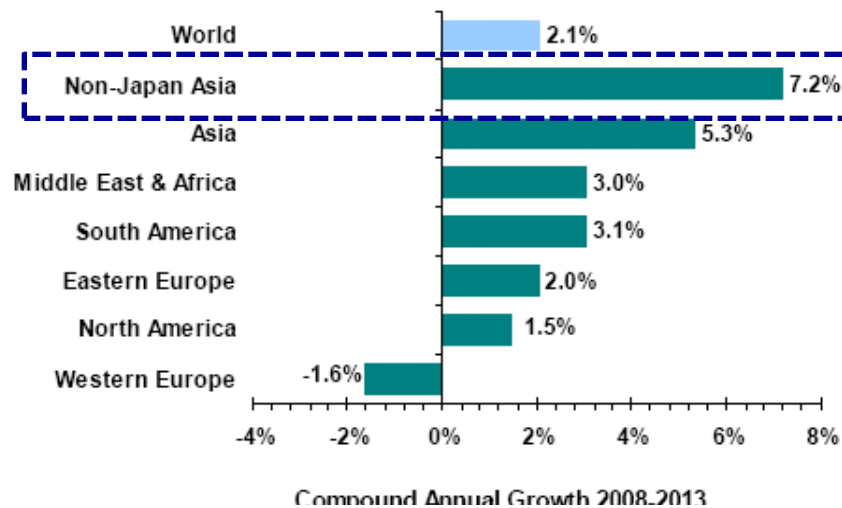
India is one of the fastest growing construction markets in the world with future growth expected to be 16% pa...



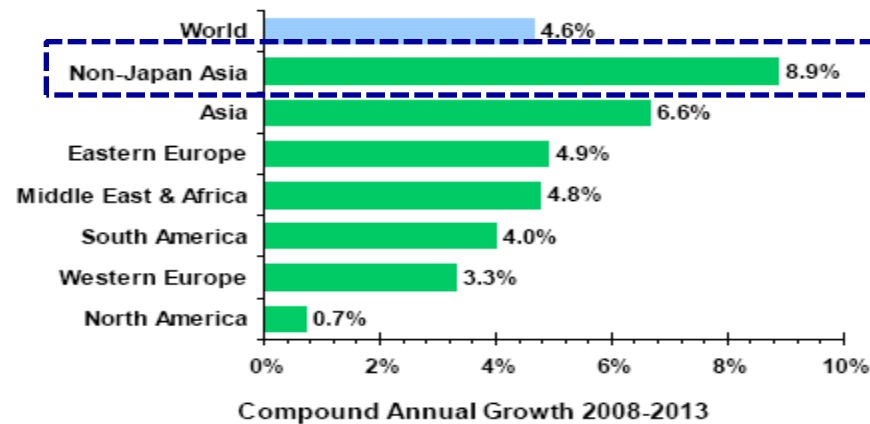
Residential & infrastructure drives growth in construction in emerging markets

2.1% pa growth likely in Overall construction market....

.....with residential growth lagging in all countries except non-Japan Asia



.....and infrastructure growth being the key driver for most developing economies

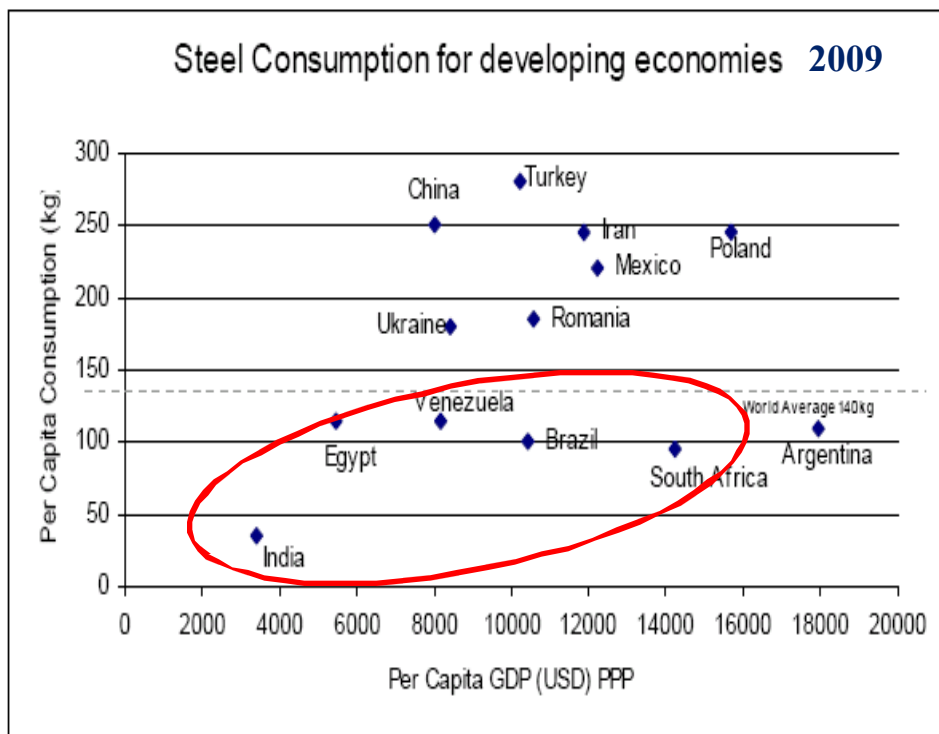


Source: Global insight

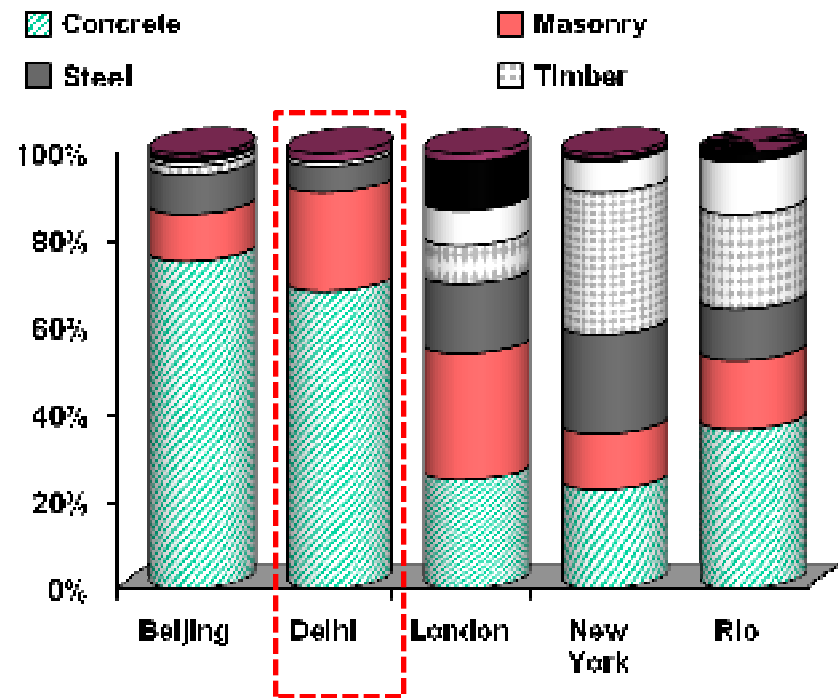
However, Steel intensity in construction is still low and steel is not preferred material of choice...

India still ranks lowest in per capita steel consumption

Steel consumption in construction segment is negligible & not preferred



Source: WSA



Source: Living Steel Research

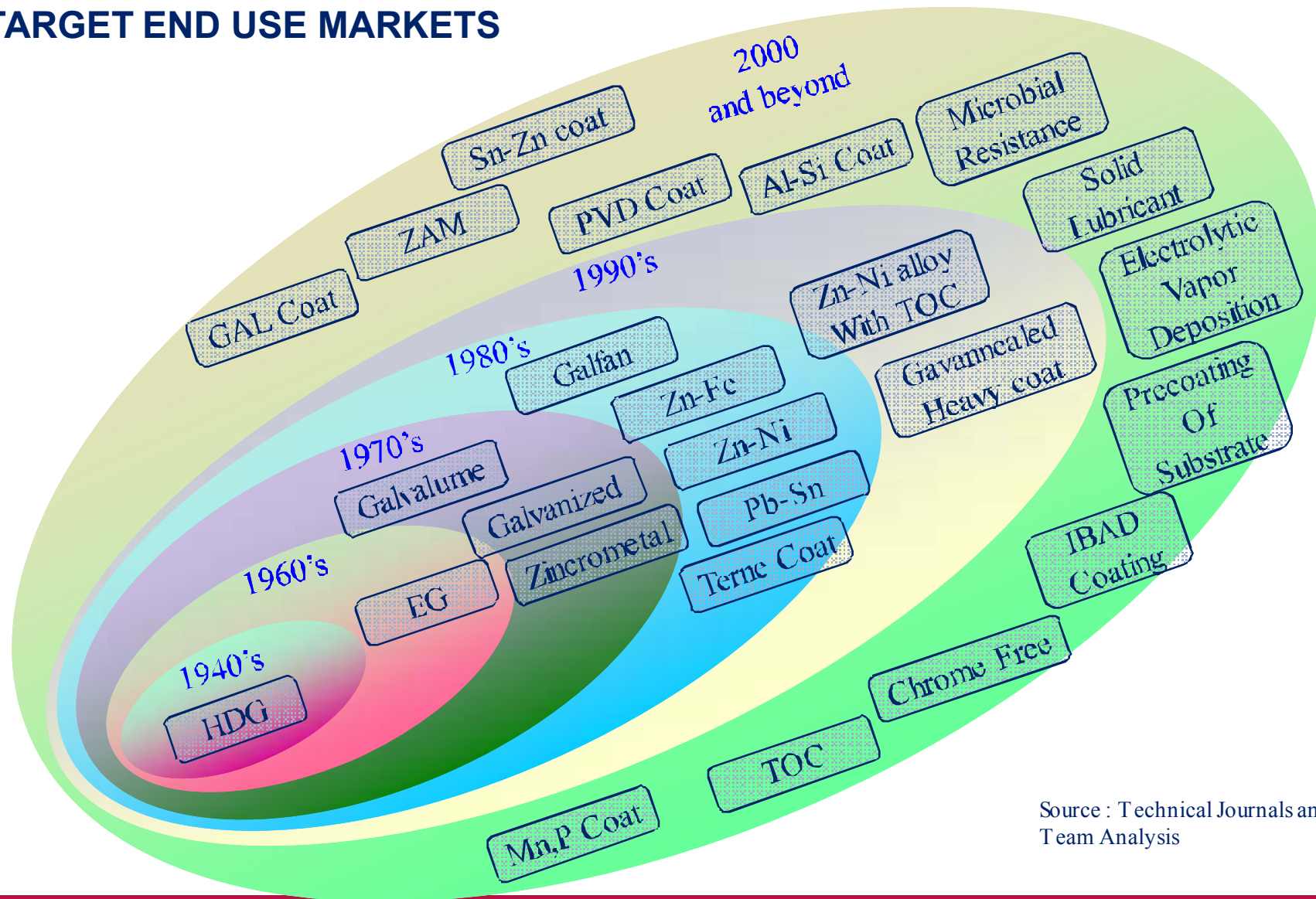
....garnering share from steel & non-steel players therefore remains an up-hill task

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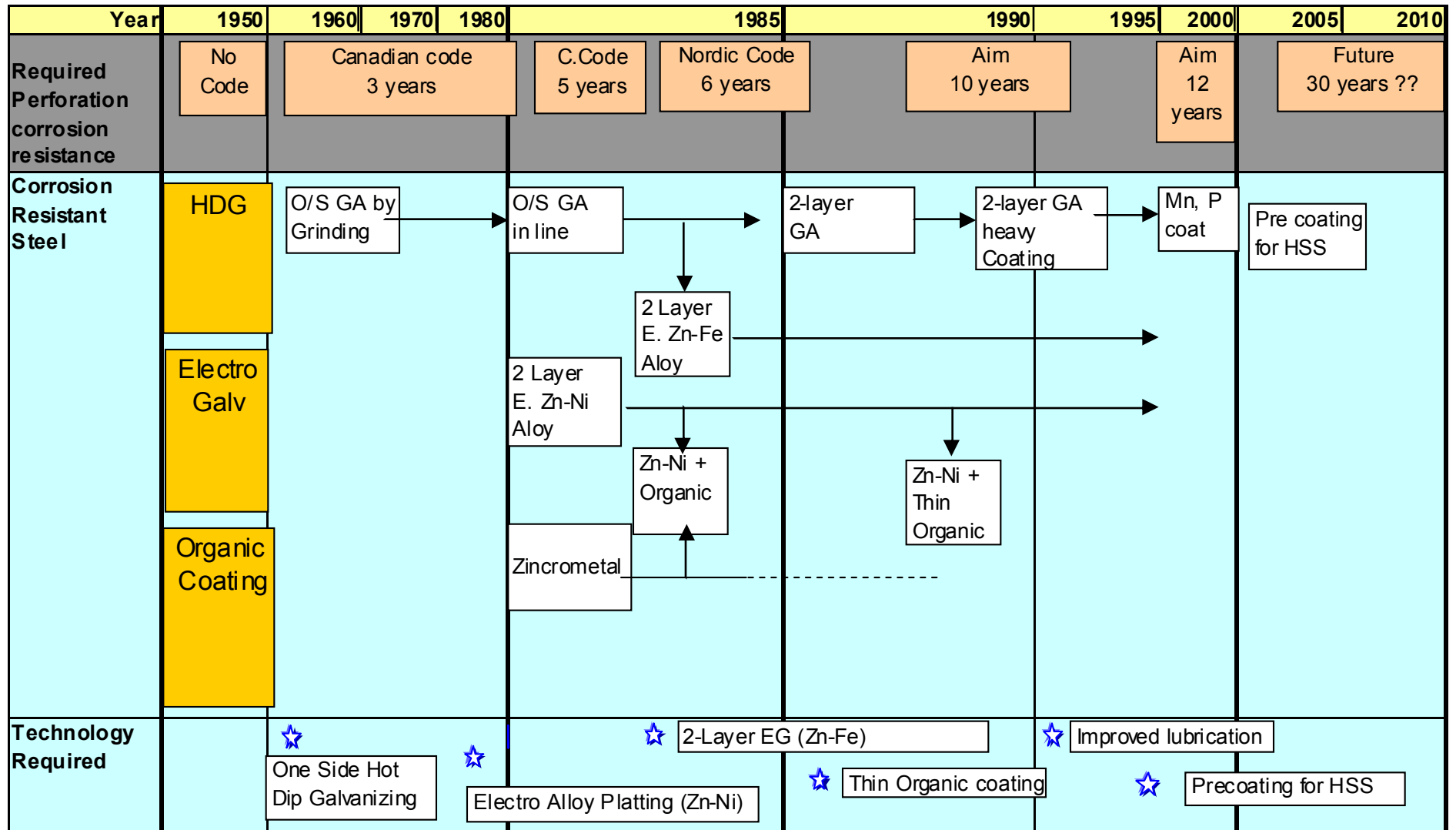
Developments in Coated Steel industry & opportunities for new products

SIGNIFICANT PRODUCT PROLIFERATION IN COATED STEEL TO SERVE TARGET END USE MARKETS



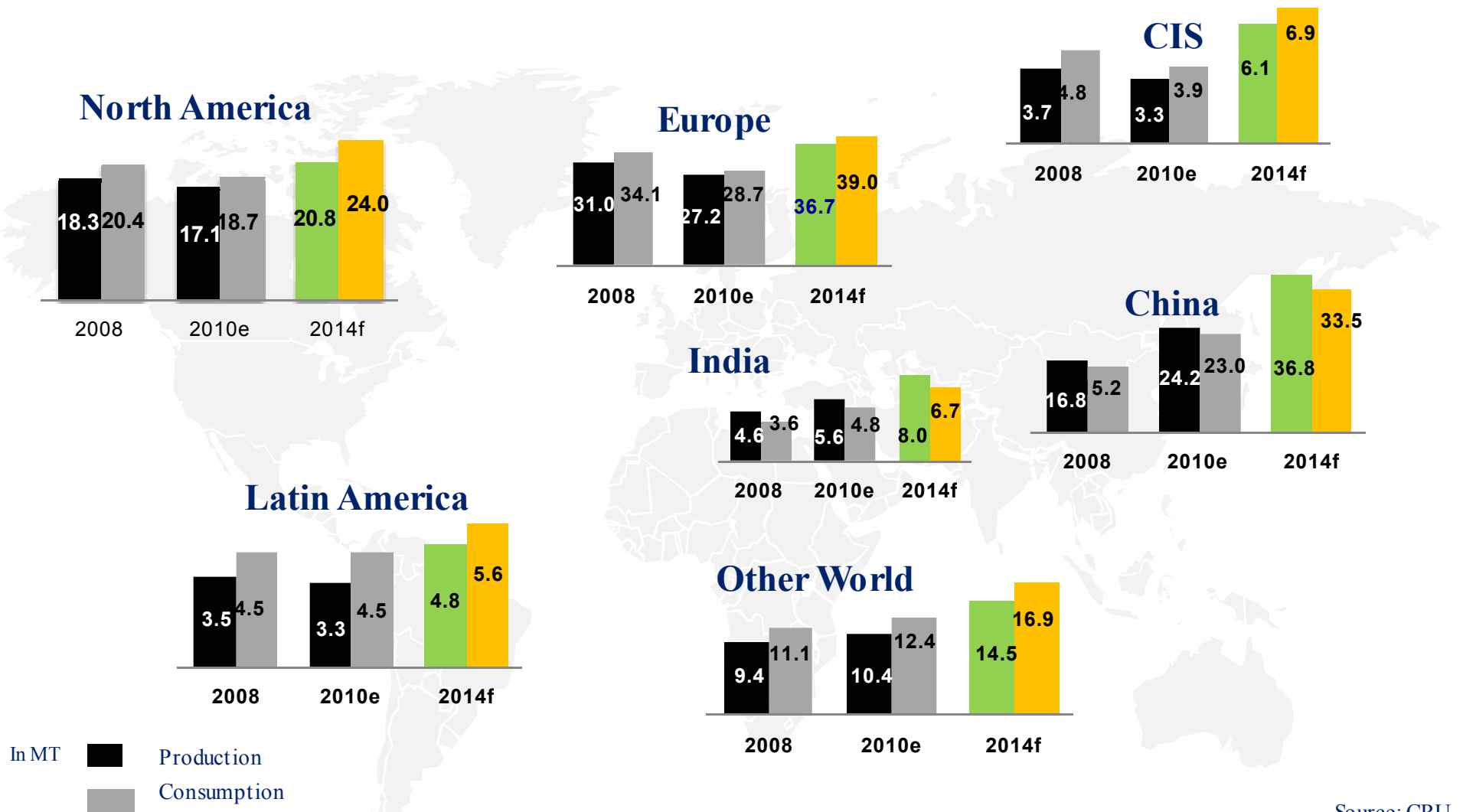
Source : Technical Journals and Tata Steel Team Analysis

EMERGENCE OF NEW TECHNOLOGIES WITH CHANGING NEEDS



Source : Technical Journals and Tata Steel Team Analysis

India and China to remain Supply excess though highest in consumption growth rate in coated steels in 2014



Source: CRU

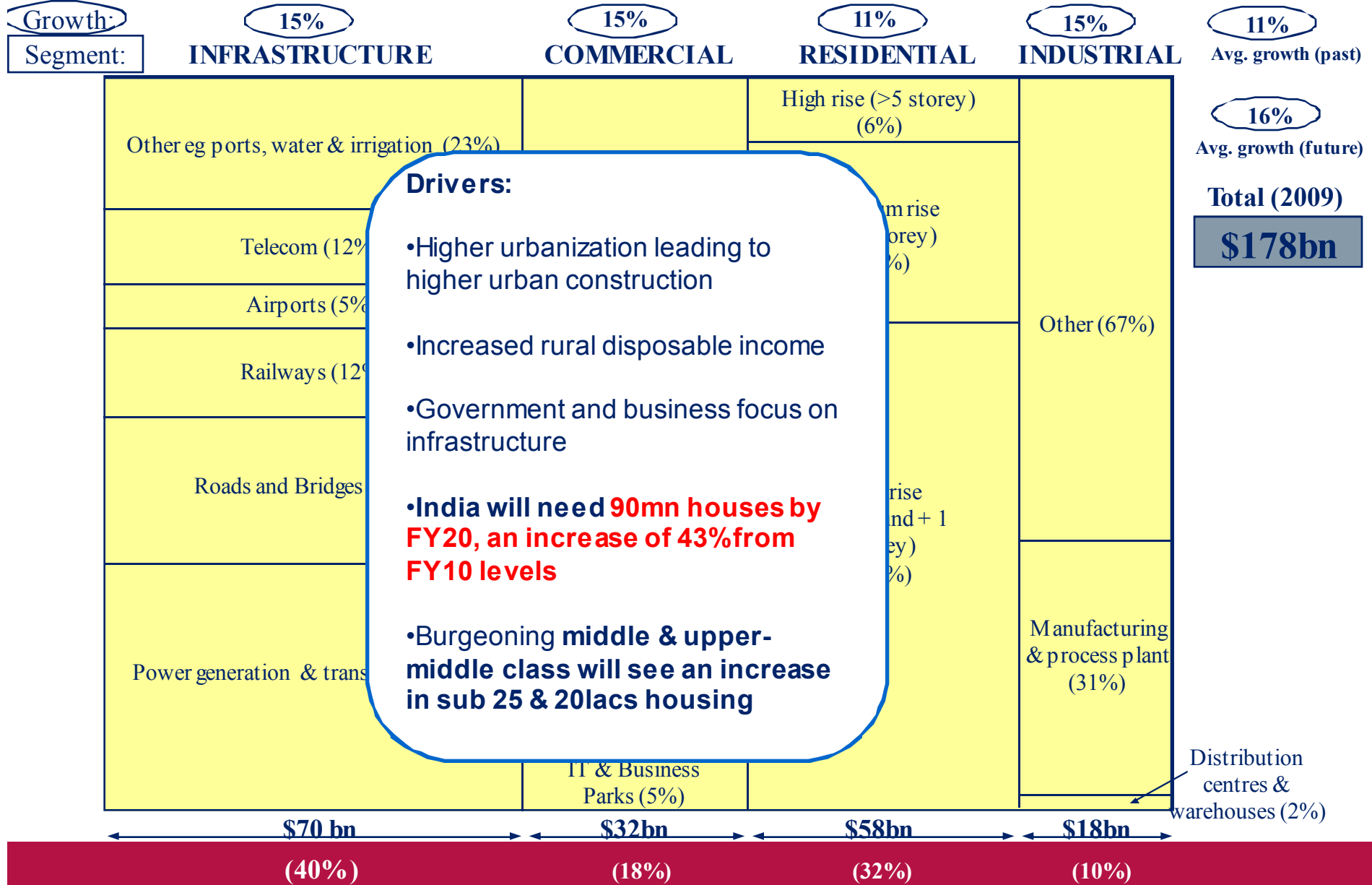
What are the implications to coated steel industry

- New coatings across the years have created niche markets for various application segments
- Most developments have been done keeping the automotive industry & high end construction
- The need for cost-effective & long lasting coatings are an imperative for emerging economies.
- Zn-Mg, Zn-poly coated, other TOCs need to be country specific developments – e.g. tex-steel, herbal steel etc.
- Coated steel has to be coupled with either non-steel offering or state-of-the-art design to address poor construction buyers

Case study India and how can developing markets address this opportunity

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SEGMENTS: Indian construction market is estimated to be around \$160 billion ...



Roofing Market Landscape - India



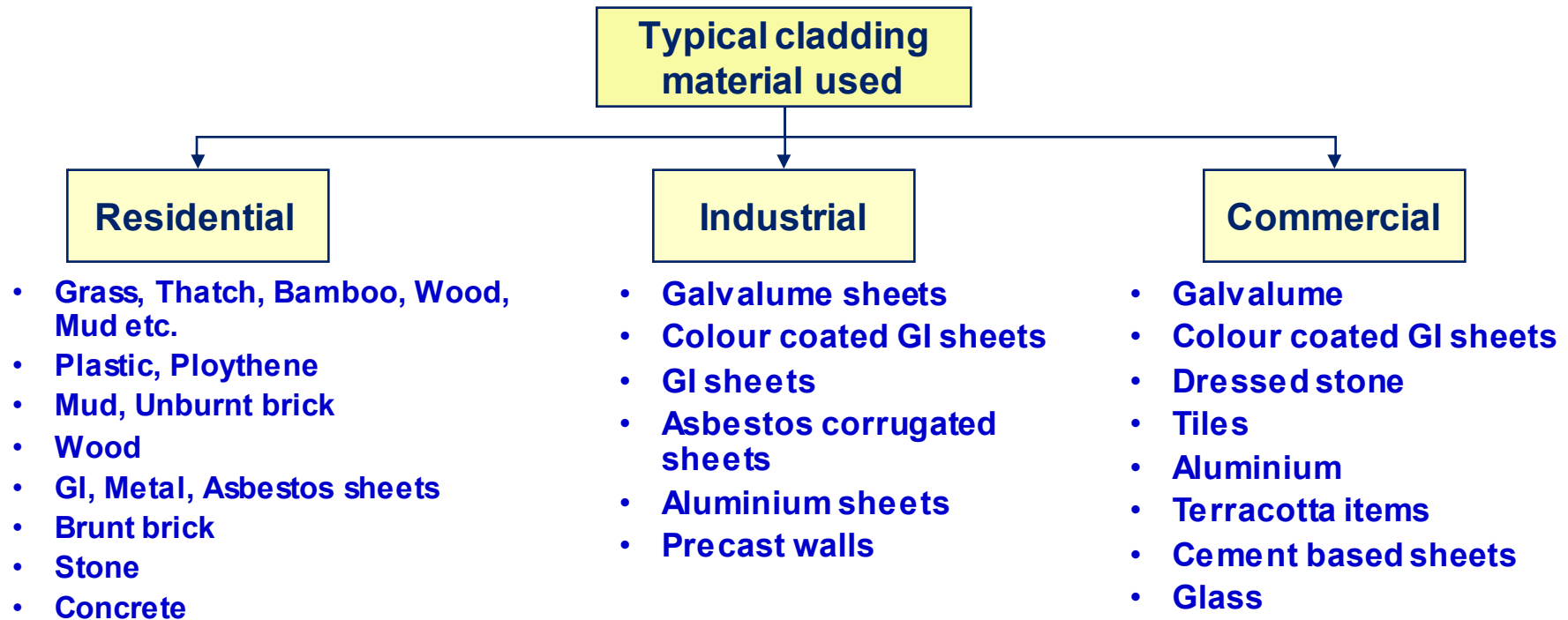
Market characteristics:

- Steel Roofing used mostly in **rural** India
- **177 million households** in rural India
- Population 742 million people in 600,000 villages.
- Potential Steel roofing customers base is **297 million** people
- **Income levels very low** compared to other countries

Challenges for Steel makers

- Increase the steel roofing pie
- Exploit the potential to Introduce products above & below the ladder
- Keep in mind customer affordability while designing new products

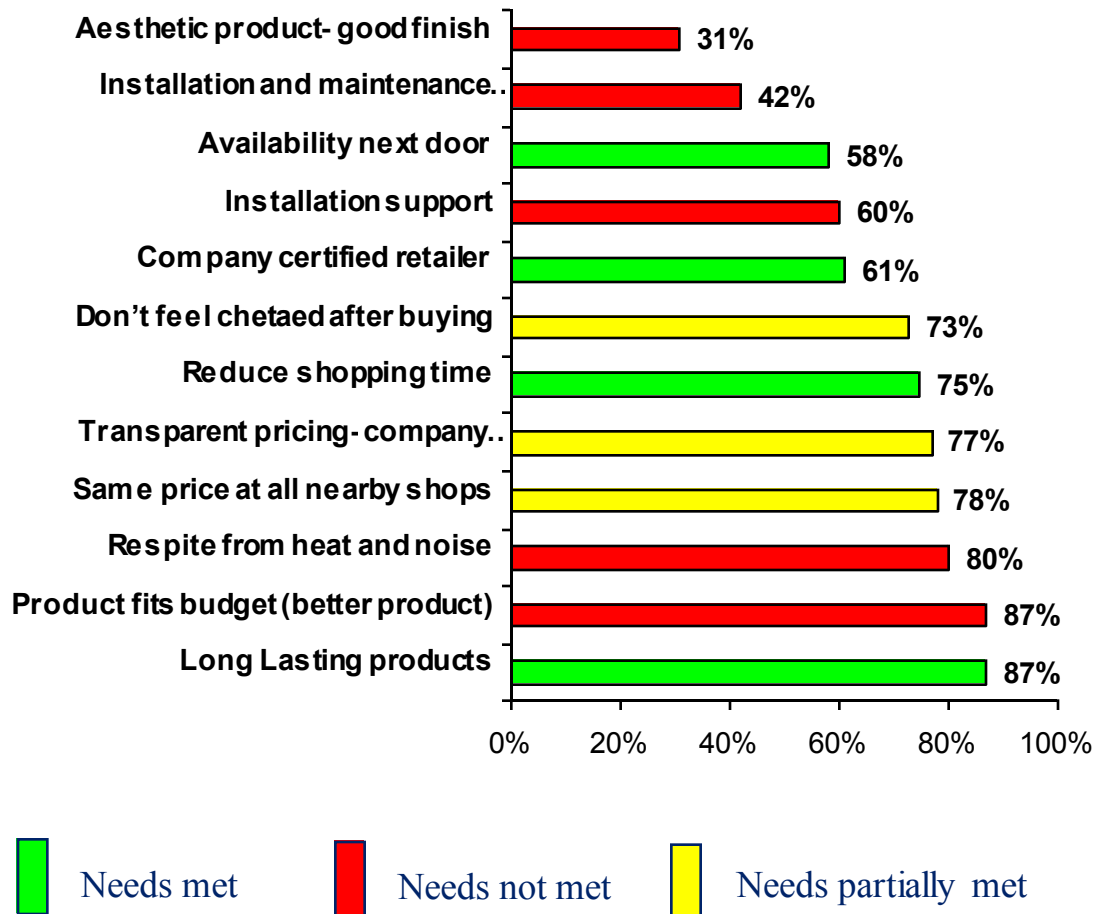
Unique usage of METAL & other material for construction in India.....



- External cladding in India low, mainly plastering done
- Usage of Galvalume sheets on the rise primarily in Industrial segments
 - Residential – continue to use plaster, granite, marble, stone, etc.
- Commercial – Use of cladding low, increasingly buildings going in for glass facades
- FRP sheets used for low end applications in residential and commercial buildings
 - Glass increasingly used in structural glazing

Consumer Needs and do we have a view as to how we address them

Customer Need from Roofing



- Consumer looking for better roofing product addressing the following needs

- Product fits Budget
- Enhanced performance (Heat & Noise Resistant product)
- Enhanced Aesthetic

- Consumer expects service & convenience

- Availability
- Post sales service
- Convenience – one-stop

Other lifestyle & latent needs we do not consider as part of steel suppliers

Need for a **safe** house
(weather & dacoits)

Need for an
affordable house

Need for **home**
garden for
vegetables

Need for **electricity** may
be only at night



Need for a **good**
looking house that
gives status

Need for **private**
sanitation & water
supply



Need for
protection from
animals

Need for
relocation during
floods

Need for other
income during
drought



Need for **social**
consensus &
progress

So what does it mean for coated steel suppliers

- New product development ?
- New substrates ?
- New service ?
- New tie-ups with non-steel partners ?
- New solutions ?
- All of this & more ???



***BREAK-THROUGH EMERGING MARKET HOUSING
DEVELOPMENT***

Products that can be standard offering in emerging markets

A low cost cool roof

**COATED STEEL + LAMINATE
(LOCAL MATERIAL) = 15° LESSER
TEMPERATURE**



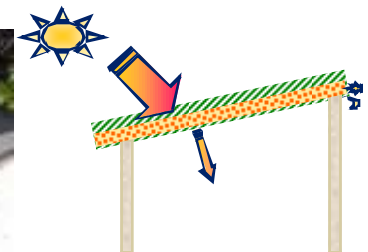
Electricity generating roof

**ROOF + LIGHT + ELECTRICITY =
LIFESTYLE at LOW COST**



Vegetable growing roof

**COOL ROOF + FAST GROWING
VEGETABLE = CASH**



Water harvesting roofs

**COOL ROOF + WATER =
LIFESTYLE**

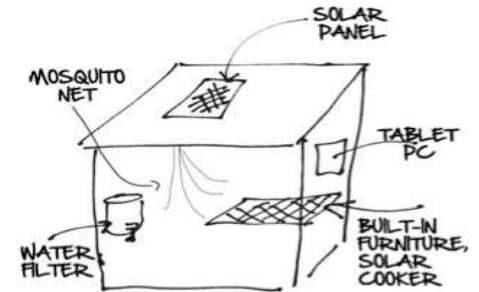


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Products & services that we need to think of as standard offering in emerging markets

A low cost HOUSE

\$300 HOUSE = Basic House + electricity + water + cooker + +



THE \$300 HOUSE for the POOR

Courtesy : Prof V Govindrajan – Tuck school Mgt

Need for innovation & collaboration with non-steel material & items

A low - Medium cost HOUSE

\$700 HOUSE = Beautiful House in 7 days



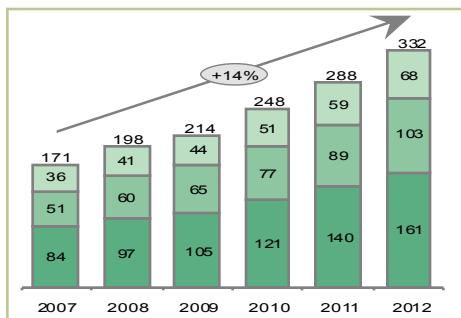
A Medium cost HOUSE

\$2000 HOUSE = All steel Beautiful House in 3hrs



Three step VISION for new markets

1 Ride growth in construction market

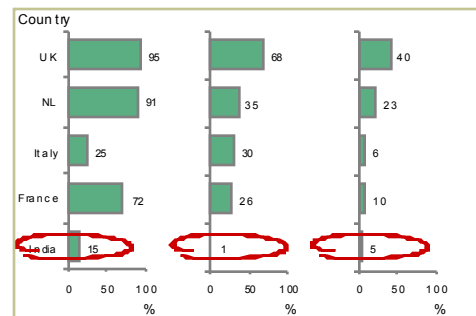


FACT - Natural growth of 14-16% in construction market, there's mullah to be made

Strategy-

- Have an offering for all segments – space for all
- Treat urban & rural in emerging markets as uniquely different segments

2 Increase steel intensity in construction in India

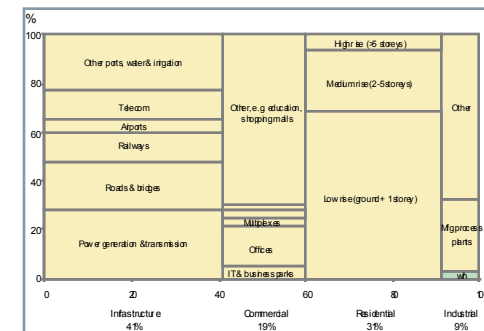


FACT - Low steel intensity in construction – whose game is it anyway

Strategy –

- Mass solutions in Steel Is the only way to increase intensity
- Simplicity of delivery system key to success – its not just about Steel!!

3 Innovate to gain share of steel in construction



FACT - Several sub-segments / applications for steel within construction

Strategy –

- Keep the customers need at the centre & not steel's need from construction.
- Focused effort on new & cost effective solutions – not just products

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THANK YOU

